



Figure similar

SIMATIC ET 200MP. PROFINET IO-DEVICE INTERFACEMODULE IM 155-5 PN ST FOR ET 200MP ELEKTRONIKMODULES; UP TO 12 IO-MODULES WITHOUT ADDITIONAL PS; UP TO 30 IO- MODULES WITH ADDITIONONAL PS SHARED DEVICE; MRP; IRT >=0.25MS; ISOCHRONICITY FW-UPDATE; I&M0...3; FSU WITH 500MS

General information	
Product type designation	IM 155-5 PN ST
HW functional status	From FS01
Firmware version	V4.1.0
• FW update possible	Yes
Vendor identification (VendorID)	0x002A
Device identifier (DeviceID)	0X0312
Product function	
• I&M data	Yes; I&M0 to I&M3
• Module swapping during operation (hot swapping)	No
• Isochronous mode	Yes
• Tool changer	No
• Local coupling, IO data	No
Engineering with	
• STEP 7 TIA Portal configurable/integrated from version	V15
• STEP 7 configurable/integrated from version	use GSD file
• PROFINET from GSD version/GSD revision	GSDML V2.3
Configuration control	
via dataset	Yes
Supply voltage	
Rated value (DC)	24 V
permissible range, lower limit (DC)	19.2 V
permissible range, upper limit (DC)	28.8 V
Reverse polarity protection	Yes
Short-circuit protection	Yes
Mains buffering	
• Mains/voltage failure stored energy time	10 ms
Input current	
Current consumption (rated value)	0.2 A; at 24 V DC and without load
Current consumption, max.	1.2 A
Inrush current, max.	9 A
I <sup>2</sup> t	0.09 A <sup>2</sup> ·s
Power	
Infeed power to the backplane bus	14 W
Power available from the backplane bus	2.3 W
Power loss	
Power loss, typ.	4.5 W
Address area	
Address space per module	

• Address space per module, max.	256 byte; For input and output data respectively
<b>Address space per station</b>	
• Address space per station, max.	512 byte; For input and output data respectively
<b>Hardware configuration</b>	
Integrated power supply	Yes
System power supply can be plugged in to left of IM	Yes
Number of permissible power segments	3; incl. interface module
<b>Rack</b>	
• Modules per rack, max.	30; I/O modules
<b>Submodules</b>	
• Number of submodules per station, max.	256
<b>Interfaces</b>	
Number of PROFINET interfaces	1; 2 ports (switch)
<b>1. Interface</b>	
<b>Interface types</b>	
• RJ 45 (Ethernet)	Yes
• Number of ports	2
• integrated switch	Yes
• BusAdapter (PROFINET)	No
<b>Protocols</b>	
• PROFINET IO Device	Yes
• Open IE communication	Yes
• Media redundancy	Yes; PROFINET MRP client
<b>PROFINET IO Device</b>	
<b>Services</b>	
— IRT	Yes; 250 µs to 4 ms in 125 µs frame
— PROFINergy	No
— Prioritized startup	Yes
— Shared device	Yes
— Number of IO Controllers with shared device, max.	2
<b>Interface types</b>	
<b>RJ 45 (Ethernet)</b>	
• Transmission procedure	PROFINET with 100 Mbit/s full duplex (100BASE-TX)
• 100 Mbps	Yes
• Autonegotiation	Yes
• Autocrossing	Yes
<b>Protocols</b>	
Modbus TCP	No
<b>Redundancy mode</b>	
• PROFINET system redundancy (S2)	No
— on S7-1500R/H	No
— on S7-400H	No
• PROFINET system redundancy (R1)	No
• H-Sync forwarding	No
<b>Media redundancy</b>	
— MRP	Yes
— MRPD	No
<b>Open IE communication</b>	
• TCP/IP	Yes
• SNMP	Yes
• LLDP	Yes
<b>Isochronous mode</b>	
Equidistance	Yes
shortest clock pulse	250 µs
max. cycle	4 ms
Bus cycle time (TDP), min.	250 µs
Jitter, max.	1 µs
<b>Interrupts/diagnostics/status information</b>	
Status indicator	Yes
Alarms	Yes

Diagnostics function	Yes
<b>Diagnostics indication LED</b>	
<ul style="list-style-type: none"> <li>• RUN LED</li> <li>• ERROR LED</li> <li>• MAINT LED</li> <li>• Connection display LINK TX/RX</li> </ul>	<ul style="list-style-type: none"> <li>Yes; green LED</li> <li>Yes; red LED</li> <li>Yes; Yellow LED</li> <li>Yes; 2x green-yellow LEDs</li> </ul>
<b>Potential separation</b>	
between backplane bus and electronics	No
between PROFINET and all other circuits	Yes; 1500 V AC (type test)
between supply and all other circuits	No
<b>Permissible potential difference</b>	
between different circuits	Safety extra low voltage SELV
<b>Isolation</b>	
Isolation tested with	707 V DC (type test)
<b>Ambient conditions</b>	
Ambient temperature during operation	
<ul style="list-style-type: none"> <li>• horizontal installation, min.</li> <li>• horizontal installation, max.</li> <li>• vertical installation, min.</li> <li>• vertical installation, max.</li> </ul>	<ul style="list-style-type: none"> <li>-25 °C; From FS03</li> <li>60 °C</li> <li>-25 °C; From FS03</li> <li>40 °C</li> </ul>
Altitude during operation relating to sea level	
<ul style="list-style-type: none"> <li>• Installation altitude above sea level, max.</li> </ul>	5 000 m; Restrictions for installation altitudes > 2 000 m, see manual
<b>connection method</b>	
ET-Connection	
<ul style="list-style-type: none"> <li>• via BU/BA Send</li> </ul>	No
<b>Dimensions</b>	
Width	35 mm
Height	147 mm
Depth	129 mm
<b>last modified:</b>	10/12/2023 